

RULE

Department of Natural Resources Office of Conservation Injection and Mining Division

November 20, 2001

Amendment To Statewide Order No. 29-B (LAC 43:XIX, Subpart 1, Chapter 5)

The Commissioner of Conservation hereby amends Statewide Order No. 29-B, LAC 43:XIX, Subpart 1, Chapter 5 (501 et seq.) in accordance with the provisions of the Administrative Procedure Act, R. S. 49:950 et seq., and pursuant to the power delegated under the laws of the State of Louisiana and particularly Title 30 of the Louisiana Revised Statutes of 1950, Sections 30:4C(1), (2), (3), (6), (8), (9), (10), (14), (16), and 4I. Changes have been made in a number of sections. The following table shows the cross-over of the titles and descriptions from the former citations to the new citations.

| Former Citation | New Citation—Title/Description |
|------------------------------------------------|------------------------------------------------------------------------------------------|
| 501. | 501. Definitions |
| N/A | 503. General Requirements for Generators of E&P Waste |
| N/A | 503.A E&P Waste Characterization |
| 503.B | 503.B & C Unauthorized Handling of E&P Waste / Subsurface Disposal of Saltwater Required |
| 503.A.1 | 503.D Handling and Disposal of E&P Waste |
| N/A | 503.E Disposal at DEQ Regulated Facilities Allowed |
| N/A | 503.F Requirements for Gas Plant Waste Solids |
| N/A | 503.G Prohibition of Waste Mixing |
| 503.A.2 | 503.H.1 Spill Reporting Requirements |
| 503.A.3 | 503.H.2 Reporting of Unauthorized Disposal |
| 503.A.4 | 503.H.3 Disposition of E&P Waste |
| 503.B | 505.A Approval of Commercial facility and Transfer Station Required |
| N/A | 505.B Requirements for Gas Plant Waste Solids |
| 503.C | 505.D Approval of Transfer Station Required |
| N/A | 505.E Electronic Submission of Applications, Data and Reports |
| 503.D | 507. Location Criteria |
| 503.E | 509. Design Criteria |
| 505.C.10 & 509.J | 511. Financial Responsibility |
| 505.C.11 | 513. Provisions for Adequate Closure |
| N/A | 515. E&P Waste Management and Operations Plan |
| N/A | 517. Permit Compliance Review |
| 505.A, B, C, & D | 519. Permit Application Requirements for Commercial Facilities |
| 505.E Permit Application Requirements for Pits | (Repealed) |
| 505.G | 521. Permit Application Requirements for Transfer Stations |
| 505.F | 523. Permit Application Requirements for Land Treatment Systems |
| N/A | 525. Permit Application Requirements for Other Treatment and Disposal Options |
| 507.A, B, C, D, F, G, & H | 527. Permitting Procedures |
| 507.E | 529. Public Notice Requirements |

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|----------------------------------------|---------------------------------------------------------------------------------------|
| N/A | 531. Permitting Conditions |
| 509. A, B, C, G, K, & L | 533. General Operational Requirements for Commercial Facilities and Transfer Stations |
| 509.D | 535. Notification Requirements |
| 509.E | 537. Hours of Receiving |
| 509.F | 539. Monitoring Requirements for Commercial Class II Injection Wells * |
| 509.H | 541. Sampling and Testing Requirements of Commercial Facilities with Monitor Wells |
| 509.I | 543. Receipt, Sampling and Testing of Exploration & Production Waste |
| 511. | 545. Manifest System |
| N/A | 547. Commercial E& P Waste Treatment and Disposal Options |
| 513. | 549. Land Treatment Facility Requirements |
| N/A | 551. Phase Separation Requirements (Reserved) |
| N/A | 553. Thermal Desorption Requirements (Reserved) |
| N/A | 555. Cavern Disposal Requirements (Reserved) |
| N/A | 557. Incineration Requirements (Reserved) |
| N/A | 559. Solidification/Stabilization Requirements (Reserved) |
| N/A | 561. Reserved |
| N/A | 563. Reserved |
| 515. | 565. Resource Conservation and Recovery of E&P Waste |
| 517. | 567. Closure Requirements |
| 519. | 569. Exceptions |
| 521. Effect on Existing Special Orders | (Repealed) |
| 523. Applicability | (Repealed) |

Title 43

NATURAL RESOURCES

Part XIX. Office of Conservation

Subpart 1. Statewide Order No. 29-B

Chapter 5. Off-site Storage, Treatment and/or Disposal of Exploration and Production Waste Generated From Drilling and Production of Oil and Gas Wells

NOTE: Onsite disposal requirements are listed in LAC 43:XIX, Chapter 3.

§501. Definitions

Application Phase-an identifiable period of time during which E&P Waste receipts are applied to a land treatment cell.

Cell-an earthen area constructed with an underdrain system within a land treatment facility used for the placement, land treatment and degradation of E&P Waste at a commercial facility. (A cell as defined in this section is not considered a pit)

Closed System-a system in which E&P Waste is stored and treated in an enclosed sump, tank, barge, or other vessel/container or equipment prior to treatment and/or disposal. A closed system does not include an open top sump or earthen pit.

Commercial Facility-a legally permitted E&P Waste storage, treatment and/or disposal facility which receives, treats, reclaims, stores, and/or disposes of E&P Waste for a fee or other consideration. For purposes of this definition, Department of Environmental Quality (DEQ) permitted facilities, as defined by LAC 33:V and VII, which are

authorized to receive E&P Waste, are not covered by this definition. However, such facilities must comply with the reporting requirements of §545.K herein if E&P Waste is accepted.

Commissioner-the Commissioner of Conservation of the State of Louisiana.

Community Saltwater Disposal Well or System-a saltwater disposal well within an oil or gas field which is operated by one operator of record for disposal of E&P Waste fluids and used by other operators of record in the same field or adjacent fields for noncommercial disposal of their produced water. Such operators share in the costs of operating the well/system. For purposes of this definition, "adjacent fields" means oil or gas fields or portions thereof which are located within or partially encroach upon the same township as a community saltwater disposal well or one or more townships all of which are directly contiguous to the township in which the community saltwater disposal well is located.

Container-a sump, storage tank, process vessel, truck, barge, or other receptacle used to store or transport E&P Waste.

Drilling Waste-oil-base and water-base drilling mud or other drilling fluids and cuttings generated during the drilling of wells. These wastes are a subset of E&P Waste.

Exploration and Production Waste (E&P Waste)-drilling wastes, salt water, and other wastes associated with the exploration, development, or production of crude oil or natural gas wells and which is not regulated by the provisions of, and, therefore, exempt from the Louisiana Hazardous Waste Regulations and the Federal Resource Conservation and Recovery Act, as amended. E&P Wastes include, but are not limited to the following:

| Waste Type | E&P Waste Description |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 01 | Salt water (produced brine or produced water), except for salt water whose intended and actual use is in drilling, workover or completion fluids or in enhanced mineral recovery operations, process fluids generated by approved salvage oil operators who only receive oil (BS&W) from oil and gas leases, and natural gas plant processing waste fluid which is or may be commingled with produced formation water. |
| 02 | Oil-base drilling wastes (mud, fluids and cuttings) |
| 03 | Water-base drilling wastes (mud, fluids and cuttings) |
| 04 | Completion, workover and stimulation fluids |
| 05 | Production pit sludges |
| 06 | Storage tank sludge from production operations, onsite and commercial saltwater disposal facilities, salvage oil facilities (that only receive waste oil [B, S, & W] from oil and gas leases), and sludges generated by service company and commercial facility or transfer station wash water systems |
| 07 | Produced oily sands and solids |
| 08 | Produced formation fresh water |
| 09 | Rainwater from firewalls, ring levees and pits at drilling and production facilities |
| 10 | Washout water and residual solids generated from the cleaning of containers that transport E&P Waste and are not contaminated by hazardous waste or material; washout water and solids (E&P Waste Type 10) is or may be generated at a commercial facility or transfer station by the cleaning of a container holding a residual amount (no more than 1 barrel) of E&P Waste |

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|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11 | Washout pit water and residual solids from oilfield related carriers and service companies that are not permitted to haul hazardous waste or material |
| 12 | Nonhazardous natural gas plant processing waste solids. |
| 13 | (Reserved) |
| 14 | Pipeline test water which does not meet discharge limitations established by the appropriate state agency, or pipeline pigging waste, i.e., waste fluids/solids generated from the cleaning of a pipeline |
| 15 | E&P Wastes that are transported from permitted commercial facilities and transfer stations to permitted commercial treatment and disposal facilities, except those E&P Wastes defined as Waste Types 01 and 06 |
| 16 | Crude oil spill clean-up waste |
| 50 | Salvageable hydrocarbons bound for permitted salvage oil operators |
| 99 | Other E&P Waste not described above (shipment to a commercial facility or transfer station must be pre-approved prior to transport) |

E&P Waste-exploration and production waste.

Generator-any person or entity who generates or causes to be generated any E&P Waste.

Groundwater Aquifer-as defined in §301.

Inactive Cell-a land treatment cell which is not used for E&P Waste receipts or has been taken out of service by a land treatment facility. Such cell may be considered inactive only if it is a new cell which has not yet received E&P Waste or an existing cell which is in compliance with the applicable testing criteria of this Chapter.

Land Treatment-a dynamic process involving the controlled application of E&P Waste onto or into the aerobic surface soil horizon in open cells by a commercial land treatment facility, accompanied by continued monitoring and management, to alter the physical, chemical, and biological state of the E&P Waste. Site, soil, climate, and biological activity interact as a system to degrade and immobilize E&P Waste constituents thereby rendering the area suitable for the support of vegetative growth and providing for beneficial future land use or to meet the reuse criteria of §565.

MPC-maximum permissible concentration

Offsite-for purposes of this Section, outside the confines of a drilling unit for a specific well or group of wells, or in the absence of such a unit, outside the boundaries of a lease or contiguous property owned by the lessor upon which a well is drilled.

Oil-Based Drilling Muds-any oil-based drilling fluid composed of a water in oil (hydrocarbon or synthetic) emulsion, organophillic clays, drilled solids and additives for down-hole rheology and stability such as fluid loss control materials, thinners, weighting agents, etc.

Pit-an earthen surface impoundment constructed to retain E&P Waste, often referred to as a pond or lagoon. The term does not include lined sumps less than 660 gallons.

Residual-the de-minimis quantity of E&P Waste (solids or liquids) remaining in a container after offloading, using the practices commonly employed to remove materials from that type of container (e.g., pouring, pumping, and aspirating) and amounting to no more than one inch of residue remaining on the bottom, or no more than 3 percent by weight of the total capacity of the container if the container is less than or equal to 110 gallons in size, or no more than 0.3 percent by weight of the total capacity of the container if the container is greater than 110 gallons in size.

Reusable Material-a material that would otherwise be classified as E&P Waste, but which is capable of resource conservation and recovery and has been processed in whole or in part for reuse. To meet this definition, the material must have been treated physically, chemically, or biologically or otherwise processed so that the material is significantly changed (i.e., the new material is physically, chemically, or biologically distinct from the original material), and meets the criteria of §565.F.

Salt Water-water with a chloride content greater than 500 ppm generated from a producing oil or gas well.

Sump-a container constructed of steel, fiberglass, sealed concrete, or some other impermeable material utilized for temporary storage of E&P Waste, including, but not limited to wash water and solids (sludge) generated by the removal/cleaning of residual amounts of E&P Waste from storage containers.

Transfer Station-an E&P Waste receiving and storage facility, located offsite, but operated at an approved location in conjunction with a permitted commercial facility, which is used for temporary storage of manifested E&P Waste for a period of 30 days or less.

Transporter-a legally permitted carrier of E&P Waste contained in trucks, barges, boats, or other transportation vessels.

Treatment-as applied to Type A Facilities (defined herein), excluding Transfer Stations, treatment shall be defined as any method, technique, or process capable of changing the physical and/or chemical characterization or composition of E&P Waste so as to reclaim salvageable hydrocarbons, process reusable material, reduce waste volume (volume reduction), neutralize waste, reduce §549 criteria concentration(s) or otherwise render the waste more suitable for handling, storage, transportation, and/or disposal.

Treatment Phase-the period of time during which E&P Waste in a land treatment cell is physically manipulated and/or chemically altered (through the addition of chemical amendments, etc.) to bring the cell into compliance with the testing criteria or reuse criteria of LAC 43:XIX.549 and 565.

Treatment Zone-the soil profile in a land treatment cell that is located wholly above the saturated zone and within which degradation, transformation, or immobilization of E&P Waste constituents occurs. The treatment zone is subdivided as follows.

1. *Waste Treatment Zone (WTZ)*-the active E&P Waste treatment area consisting solely of the E&P Waste solids applied to a land treatment cell during the application phase, exists entirely above grade (original cell bottom), and whose actual depth depends on the solids content of the E&P Waste applied. For monitoring purposes the WTZ represents the 0-24" depth increment.

2. *Upper Treatment Zone (UTZ)*-the E&P Waste/native soil (original cell bottom) interface in a land treatment cell where some disturbance occurs as a result of E&P Waste treatment/manipulation. For monitoring purposes, the UTZ represents the 24-36" depth increment.

3. *Lower Treatment Zone (LTZ)*-the zone beneath the UTZ in a land treatment cell from approximately 36-54" (or to the top of the subsurface drainage system) which remains undisturbed throughout the life of a land treatment cell.

Type A Facility-a commercial E&P Waste disposal facility within the state that utilizes technologies appropriate for the

receipt, storage, treatment, or disposal of E&P Waste solids and fluids (liquids) for a fee or other consideration.

Type B Facility-a commercial E&P Waste disposal facility within the state that utilizes underground injection technology for the receipt, storage, treatment, and disposal of only saltwater or other E&P Waste fluids (liquids) for a fee or other consideration.

Waste Management and Operations Plan-a plan as identified and required in §515.

Water-Based Drilling Muds-any water-based fluid composed of fresh water, naturally occurring clays, drilled solids and additives for fluid loss control, viscosity, thinning, pH control, weight control, etc., for down-hole rheology and stability.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2811 (December 2000), amended LR 27:1898 (November 2001).

§503. General Requirements for Generators of E&P Waste

A. E&P Waste Characterization

1. Generators of E&P Waste must be familiar with the components of the E&P Waste they generate.

2. If not previously characterized, E&P Waste characterization procedures should be undertaken to determine the constituents of E&P Waste prior to disposal.

3. At a minimum, E&P Waste should be tested for the following constituents: pH, TPH, EC, TCLP benzene, SAR, ESP and the following metals: As, Ba, Cd, Cr, Cu, Pb, Hg, Mo, Ni, Se, Ag and Zn.

4. E&P Waste should be re-characterized if the waste generation process changes significantly (e.g., process change, chemical additives, etc.)

5. E&P Waste which is to be taken offsite or has been taken offsite for storage, treatment, or disposal may be required to be sampled and analyzed in accordance with EPA protocols or Office of Conservation (OC) approved procedures.

B. The unpermitted or unauthorized onsite or offsite storage, treatment, disposal or discharge of E&P Waste is prohibited and is a violation of these rules.

C. Subsurface disposal of salt water is required and regulated by LAC 43:XIX.401 et seq. The requirements of this Chapter do not apply to either lease saltwater disposal wells or to community saltwater disposal wells.

D. The generator is responsible for the proper handling and transportation of E&P Waste taken offsite for storage, treatment, or disposal to assure its proper delivery to an approved commercial facility or transfer station or other approved storage, treatment or disposal facility. Failure to properly transport and dispose of E&P Waste shall subject the generator to penalties provided for in R.S. 30:18. Each shipment must be documented as required by §545.

E. At the option of the generator, E&P Waste may be treated and/or disposed at Department of Natural Resources (DNR) permitted commercial facilities and transfer stations under the provisions of this Chapter or Department of Environmental Quality (DEQ) permitted facilities as defined by LAC 33:V and VII which are permitted to receive E&P Waste which are subject to relevant DEQ regulations. If received, stored, treated and/or disposed at a DEQ regulated

facility, E&P Waste would become the sole regulatory responsibility of DEQ upon receipt.

F. Requirements for E&P Waste Type 06 (Storage Tank Sludge) and E&P Waste Type 12 (Gas Plant Waste Solids)

1. Generators of Waste Type 06 are hereby made aware that commercial land treatment facilities must manage such waste in compliance with the location criteria of §507.A.3 and the maximum permissible concentration (MPC) requirements of §549.C.7.c and d for total benzene.

2. Waste Types 12 is not required to be tested for benzene if disposed at commercial facilities that utilize treatment options other than land treatment (see §547).

3. Prior to shipment and disposal at commercial land treatment facilities, nonhazardous natural gas plant processing waste solids (gas plant waste - Waste Type 12) must be analyzed for the chemical compound benzene (C₆H₆). Testing must be performed by a DEQ certified laboratory in accordance with procedures presented in the *Laboratory Manual for the Analysis of E&P Waste* (Department of Natural Resources, August 9, 1988, or latest revision).

4. Subject to the requirements of §507.A.3 and §549.C.7.a, Waste Type 12 may be disposed at any commercial land treatment facility if test data indicates the waste is less than or equal to the MPC of 3198 mg/kg total benzene.

5. If test data indicates the concentration of total benzene in Waste Type 12 is above 3198 mg/kg (MPC criteria), the following disposal options are available:

a. dispose of the waste at a permitted commercial facility that utilizes an E&P Waste treatment or disposal option other than land treatment;

b. treat the waste (on-site) to a concentration of total benzene equal to or below 3198 mg/kg prior to off-site shipment to any commercial land treatment facility;

c. dispose of the E&P Waste at a commercial land treatment facility that has been approved for the receipt, storage, treatment and disposal of E&P Waste that exceeds a total benzene concentration of 3198 mg/kg; or

d. dispose of the E&P Waste at Department of Environmental Quality (DEQ) permitted facilities as defined by LAC 33:V and VII, pursuant to the provisions of §503.E above.

6. If a generator chooses to dispose of Waste Type 12 at a commercial land treatment facility, the generator must attach a copy of the laboratory report to the manifest which accompanies each shipment of the E&P Waste.

7. Commercial land treatment facilities may not receive, store, treat or dispose of E&P Waste Type 12, gas plant waste solids, unless the requirements of §505.B have been met.

G. Prohibition of Waste Mixing

1. A mixture of E&P Wastes containing amounts greater than residual quantities of Waste Type 06 (and associated wash water) shall be designated as Waste Type 06, and if land treated, must meet the distance requirements for Waste Type 06 in §507.A.3 below.

2. Mixing Waste Type 12 with any other E&P Waste type prior to sampling and shipment to a commercial land treatment facility or transfer station is strictly prohibited.

3. Any inadvertent or unavoidable mixture of E&P Wastes containing any quantity of Waste Type 12 (and

associated wash water) must meet the MPC testing criteria of §549.C.7.a for total benzene and must meet the distance requirements for Waste Type 12 in §507.A.3.

H. General Reporting Requirements

1. Any spills which occur during the offsite transportation of E&P Waste shall be reported by phone to the Office of Conservation, within 24 hours of the spill and the appropriate state and federal agencies.

2. Operators (generators) are required to report the discovery of any unauthorized disposal of E&P Waste by transporters, or any other oilfield contracting company.

3. Within six months of the completion of the drilling or workover of any well permitted by the Office of Conservation, the operator (generator) shall comply with the reporting requirements of LAC 43:XIX.303 or successor regulations regarding the disposition of any E&P Wastes.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2811 (December 2000), amended LR 27:1900 (November 2001).

§505. General Requirements for Commercial Facilities and Transfer Stations

A. The offsite storage, treatment, and/or disposal of E&P Waste by a commercial facility or transfer station must be approved by the commissioner as provided in this Chapter.

B. Commercial land treatment facilities may not receive, store, treat or dispose of nonhazardous natural gas plant processing waste solids (Waste Type 12) that exceed the MPC criteria of §549.C.7.a for total benzene (3198 mg/kg) unless the company has demonstrated to the commissioner that Waste Type 12 can be pretreated to below the applicable MPC prior to land treatment. Such demonstration shall be considered a major modification of any existing permit and will require compliance with the permitting procedures of §§519, 527, and 529, including the submission of an application and public participation. The E&P waste management and operations plan required in §515 shall clearly indicate how the E&P Waste storage and treatment system will minimize the release of benzene (e.g., enclosed tanks, enclosed treatment equipment, vapor recovery systems, etc.). Such demonstration shall also include proof of solicitation from DEQ regarding applicable required air permitting for the existing and amended land treatment system.

C. Land treatment facilities that accept Waste Type 06 must meet the location criteria of §507.A.3 and the E&P Waste pretreatment and treatment criteria of §549.C.7.c and d.

D. Approval of Transfer Station Required: The construction and operation of a transfer station must be approved by the commissioner upon submission of a permit application according to the requirements of §521.

E. The Commissioner will consider and encourages the electronic submission of applications, data or reports required under this Chapter.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2811 (December 2000), amended LR 27:1901 (November 2001).

§507. Location Criteria.

A. Commercial facilities and transfer stations may not be located in any area:

1. within one-quarter mile of a public water supply well, within 1,000 feet of a private water supply well or within a DEQ designated source water protection or wellhead protection area for facilities permitted after January 1, 2002;

2. where Type A and B facilities and transfer stations, Class II disposal wells, storage containers and E&P Waste treatment systems and related equipment are located within 500 feet of a residential, commercial, or public building, church, school or hospital;

3. where the perimeter of any Type A land treatment cell is located within restricted distances from a residential or public building, church, school, or hospital for treatment of Waste Types 06 and 12 as listed below:

| Special Conditions | Restricted Distance |
|-----------------------------------------------|---------------------|
| Land treatment of Waste Type 06: | |
| ≤ 113 mg/kg total benzene (MPC) | 1,000' |
| Not tested or > 113 mg/kg total benzene (MPC) | 2,000' |
| Land treatment of Waste Type 12 | |
| ≤ 3198 mg/kg total benzene (MPC) | 2,000' |
| > 3198 mg/kg total benzene (MPC) | (banned) |
| Land treatment of all other E&P Waste types | 1,000' |

4. where the subsurface geology of any proposed injection zone (reservoir) does not exhibit the following characteristics:

a. adequate thickness and areal extent of the proposed injection zone; and

b. adequate clay confining beds separating the top of the proposed injection zone and the base of the lowermost underground source of drinking water;

5. where permanent E&P Waste storage containers, land treatment cells, and storm water retention (sediment) ponds are located in a "V" or "A" zone as determined by flood hazard boundary or rate maps and other information published by the Federal Emergency Management Agency (FEMA) unless adequate levees are constructed to at least one foot above the 100-year flood elevation as certified by a professional engineer or surveyor and able to withstand the velocity of the 100-year flood. Existing facilities located in a "V" or "A" zone will be required to build facility levees above the 100-year flood elevation as certified by a professional engineer or land surveyor. As conditions change and new data is made available by FEMA, owners of existing commercial facilities and transfer stations will be required to update their facilities accordingly;

6. where such area, or any portion thereof, has been designated as wetlands by the U.S. Corps of Engineers during, or prior to, initial facility application review, unless the applicable wetland and Coastal Management Zone permits are obtained;

7. where other surface or subsurface conditions exist which in the determination of the Commissioner of Conservation would cause the location to pose a threat of substantial, adverse effects on public health or safety or the environment at or near the location.

B. If the owner of the residence or commercial building or the administrative body responsible for the public

building, hospital or church waives the distance requirements of §507.A.2 above, such waiver must be in writing, shall contain language acceptable to the commissioner, and shall be included in the permit application.

C. Transfer stations are exempt from the location requirement of 500 feet from a commercial building.

D. The above location criteria shall apply to commercial facilities in existence on November 20, 2001 and shall be applied to a proposed new facility or modification of an existing facility as of the date the notice of intent is published or the date the application is filed with the Office of Conservation, whichever is earlier.

E. Any encroachment upon applicable location criteria after the date the notice of intent is published or the application is filed, whichever is earlier, shall not be considered a violation of this Section.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2811 (December 2000), amended LR 27:1901 (November 2001).

§509. Design Criteria

A. Commercial facilities, transfer stations and commercial Class II saltwater disposal wells shall be designed and constructed in such a manner as to prevent the movement of E&P Waste into soil, groundwater aquifers or underground sources of drinking water (USDW's) and to prevent the discharge of E&P Waste materials or E&P Waste byproducts into man-made or natural drainage or directly into state waters unless a discharge permit has been received from the appropriate state or federal agency.

B. Commercial facilities and transfer stations shall be designed and constructed in a manner which is protective of public health, safety and welfare or the environment, surface waters, groundwater aquifers and underground sources of drinking water in accordance with, but not limited to, the following requirements:

1. all applicable construction and operational standards of this Chapter, as well as Chapter 2, Chapter 3, and Chapter 4 of LAC 43:XIX, Subpart 1, Statewide Order No. 29-B;

2. facility design shall provide for the segregation, separation, and containment of free oil, where appropriate;

3. retaining walls (levees) shall be built around all above-ground storage tanks to a level that will provide sufficient capacity to retain the contents of each tank and prevent the release of stored E&P Wastes due to tank leakage, or some other cause;

4. spill containment systems shall be built around unloading areas to prevent the escape of any E&P Wastes spilled during off-loading; and

5. limited access to E&P Waste transported on land shall be provided by a lockable gate system. The need for a 6-foot chain-link fence around an entire facility or any portion of a facility will be determined after a site investigation by the commissioner or his designated representative. Gates shall be locked except during the hours a facility is permitted to receive E&P Waste.

C. Land treatment cells shall not exceed 5 acres in size.

D. Except for storm water retention (sediment) ponds at land treatment facilities (§549.C.12) and sumps as defined in §501, earthen or artificially lined pits shall not be

constructed or used for storage of E&P Waste at any commercial facility or transfer station.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2811 (December 2000), amended LR 27:1902 (November 2001).

§511. Financial Responsibility

A. Each permitted commercial facility and transfer station must maintain evidence of financial responsibility for any liability for damages which may be caused to any party by the escape or discharge of any material or E&P Waste offsite from the commercial facility or transfer station. Such evidence must be provided by the applicant prior to issuance of a permit.

B. Financial responsibility may be evidenced by filing a letter of credit, bond, certificates of deposit issued by and drawn on Louisiana banks, or any other evidence of equivalent financial responsibility acceptable to the commissioner.

C. In no event shall the amount and extent of such financial responsibility be less than the face amounts per occurrence and/or aggregate occurrences as set by the commissioner below:

1. \$500,000 minimum financial responsibility for any commercial facility (excluding transfer stations) which stores, treats or disposes of E&P Waste solids (i.e. oil- or water-base drilling fluids, etc.); or

2. \$250,000 minimum financial responsibility for a commercial salt water disposal facility which utilizes underground injection and a closed storage system; and

3. \$100,000 minimum financial responsibility for each transfer station operated in conjunction with a legally permitted commercial facility subject to the guidelines of this Section.

NOTE: The commissioner retains the right to increase the face amounts set forth above as needed in order to prevent waste and to protect public health, safety, and welfare or the environment.

D. If insurance coverage is proposed and accepted to meet the financial responsibility requirement, it must be provided by an insurer that is licensed to transact the business of insurance, or eligible to provide insurance as an excess of surplus lines insurer, in one or more states, and is authorized to conduct insurance business in the state of Louisiana.

1. For a commercial facility which operates land treatment cells, such insurance must provide sudden and accidental pollution liability coverage as well as environmental impairment liability coverage.

2. For any commercial facility or transfer station which does not operate land treatment cells, such insurance must provide sudden and accidental pollution liability coverage.

E. Proof of insurance must be provided by a certificate of liability insurance which must be worded as follows, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted:

COMMERCIAL FACILITY

CERTIFICATE OF LIABILITY INSURANCE

1. [Name of Insurer], (the "Insurer") of [address of Insurer] hereby certifies that it has issued liability insurance covering bodily injury and property damage to [name of insured], (the "insured"), of [address of insured] in

connection with the insured's obligation to demonstrate financial responsibility under LAC 43:XIX.511. The coverage applies at [site code or address for each facility] for [insert "sudden and accidental pollution liability" or "environmental impairment"]. The limits of liability are [insert the dollar amount of "each occurrence" and "annual aggregate" limits of the Insurer's liability], exclusive of legal defense costs. The coverage is provided under policy number _____, issued on [date]. The effective date of said policy is [date].

2. The insurer further certifies the following with respect to the insurance described in §511.E.1 above.

a. Bankruptcy or insolvency of the insured shall not relieve the insurer of its obligation under the policy.

b. The insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated.

c. Whenever requested by the Commissioner of Conservation, the insurer agrees to furnish to the Commissioner a signed duplicate original of the policy and all endorsements.

d. Cancellation of the insurance, whether by the insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the commercial facility or transfer station, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Commissioner of Conservation.

e. Any other termination of the insurance will be effective only upon written notice and only after the expiration of 30 days after a copy of such written notice is received by the Commissioner of Conservation.

I hereby certify that the wording of this instrument is identical to the wording specified in LAC 43:XIX.511.E as such regulation was constituted on the date this certificate was issued, as indicated below, and that the insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess of surplus lines insurer, in one or more states, and is authorized to conduct insurance business in the state of Louisiana.

[Signature of authorized representative of Insurer]

[Type name]

[Title], Authorized Representative of [Name of Insurer]

[Address of Representative]

DATE OF ISSUANCE: _____.

F. A commercial facility or transfer station application shall contain documentation of the method by which proof of financial responsibility will be provided by the applicant. Where applicable, the application must include copies of a draft letter of credit, bond, or any other evidence of financial responsibility acceptable to the commissioner.

G. Documentation of financial responsibility must be submitted to and approved by the commissioner prior to beginning construction.

H. Financial responsibility must be renewable on April 1 of each year. Documentation that the required financial responsibility has been renewed must be received by March 15 of each year or procedures to initiate permit suspension

will be initiated. If suspended, the permit shall remain suspended until insurance coverage has been confirmed.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2811 (December 2000), amended LR 27:1903 (November 2001).

§513. Provisions for Adequate Closure

A. All offsite commercial facilities and transfer stations under the jurisdiction of the Office of Conservation shall be closed in a manner approved by the commissioner to insure protection of the public, the environment, groundwater aquifers and underground sources of drinking water. A plan for closure must be developed in accordance with the requirements of the commissioner.

B. Each permitted commercial facility and transfer station shall maintain a bond or irrevocable letter of credit on file with the Office of Conservation to provide for adequate closure of the facility. The bond or letter of credit must be renewable on October 1 of each year.

C. Closure bond or letter of credit amounts will be reviewed each year prior to the renewal date according to the following process.

1. A detailed cost estimate for adequate closure of each permitted commercial facility or transfer station shall be prepared by an independent professional consultant and submitted to the commissioner on or before February 1 of each year.

2. The closure plan and cost estimate must include provisions or closure acceptable to the commissioner and must be designed to reflect the costs to the Office of Conservation to complete the approved closure of the facility.

3. Upon review of the cost estimate, the commissioner may increase, decrease or allow the amount of the bond or letter of credit to remain the same.

4. Documentation that the required closure bond or letter of credit has been renewed must be received by September 15 of each year or the commissioner shall initiate procedures to take possession of the funds guaranteed by the bond or letter of credit and suspend or revoke the permit under which the facility is operated. Any permit suspension shall remain in effect until renewal is documented.

D. The commissioner may consider the submission of other financial documents on a case-by-case basis to comply with the requirements of this Section.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2811 (December 2000), amended LR 27:1903 (November 2001).

§515. E&P Waste Management and Operations Plan

A. All existing commercial facilities and transfer stations must maintain an E&P Waste management and operations plan (WMOP, Plan) on file with the Office of Conservation.

B. The Plan must be updated as necessary or at the request of the commissioner to take into consideration any changes or modifications made at the facility.

C. The Plan must describe the methods by which activities at the facility are monitored to insure compliance with the applicable requirements of this Chapter and Chapters 1, 3 and 4 of LAC 43:XIX, Subpart 1, Statewide Order No. 29-B.

D. For existing commercial facilities and transfer stations, a WMOP shall be submitted to the Office of Conservation within 180 days of promulgation of this requirement.

E. For new commercial facilities and transfer stations, a WMOP must be submitted with the application.

F. At a minimum, a WMOP shall contain the following information:

1. volume, rate of application/treatment and types of E&P Wastes to be received, stored, treated and/or disposed at each commercial facility or transfer station; a complete explanation of procedures for witnessing the receipt, sampling, and testing of E&P Wastes (E&P Waste acceptance policy) to assure that only permitted E&P Wastes are accepted, in compliance with the requirements of §545; and a detailed explanation of the storage, treatment and disposal system and related equipment to be utilized;

2. a contingency plan for reporting, responding to and cleaning up spills, leaks, and releases of E&P Wastes or treatment byproducts, including provisions for notifying applicable local, state and federal emergency response authorities and for taking operator-initiated emergency response actions;

3. a plan for routine inspection and maintenance of monitoring equipment (e.g., gauges, monitor wells, etc.) to ensure and demonstrate compliance with permit and regulatory requirements;

4. commercial land treatment facilities must provide the following information:

- a. a groundwater and facility monitoring plan to comply with the applicable requirements of this Chapter;

- b. specific plans for preventing or minimizing air emissions from sources such as the volatilization of organic materials (e.g., benzene) and/or hydrogen sulfide in E&P Waste, particulate matter (dust) carried by the wind, periodic removal and subsequent handling of free oil, and chemical reactions (e.g., production of hydrogen sulfide from sulfur-bearing E&P Wastes);

- c. the plan shall address short-term and long-term distribution of Waste Type 06 on land treatment cells to prevent excessive 'same cell' loading of this E&P Waste Type;

- d. a reuse stockpile management plan (see §565.G);

- e. plans to comply with the location criteria of §507.A.3 for land treatment of E&P Waste;

5. a security plan for the facility;

6. a community relations or public information plan; and

7. an environmental, health, and safety plan which describes site sampling methods and procedures to determine the potential risks to public health, safety and welfare or the environment posed by the site. Such plan shall indicate how the facility will comply with the applicable environmental monitoring requirements of this Chapter.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1904 (November 2001).

§517. Permit Compliance Review

A. Commercial facility and transfer station permits shall be reviewed at least once every five years to determine compliance with applicable permit requirements and

conditions. Commencement of the permit review process for each commercial facility and transfer station shall proceed as authorized by the commissioner of Conservation.

B. At the commissioner's discretion, any commercial facility or transfer station operator may be required to sample and test facility property and/or equipment for NORM and/or parameters established for "soils" in §549.E.2 to assure compliance with closure requirements of §567.A. The commercial facility or transfer station operator must submit a report detailing the results of all onsite sampling and testing in a manner acceptable to the Commissioner of Conservation. Sampling and testing must be performed by an independent professional consultant and third-party laboratory. Testing must be performed by a DEQ certified laboratory in accordance with procedures presented in the Laboratory Manual for the Analysis of E&P Waste (Department of Natural Resources, August 9, 1998, or latest revision).

C. Upon review of the data and as deemed appropriate, administrative steps will be taken to revise or revoke permits.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2811 (December 2000), LR 27:1904 (November 2001).

§519. Permit Application Requirements for Commercial Facilities

A. Application and Permit Required.

1. Every person who intends to construct and operate a new offsite commercial facility or transfer station, or make a major modification to an existing commercial facility or transfer station, shall file a permit application with the Office of Conservation.

2. A major modification to an existing commercial facility or transfer station permit is one in which the facility requests approval to make significant technological changes to an existing E&P Waste treatment and/or disposal system, including the construction and operation of additional equipment or systems to treat and/or dispose of E&P Waste streams other than those previously accepted by the facility. A major modification request may include a request to expand an existing commercial facility or transfer station onto adjacent property not previously permitted for E&P Waste disposal activities.

3. Examples of minor permit modifications include, but are not limited to, requests to add additional Class II disposal wells to an existing facility, to add treatment equipment to supplement existing equipment, or to add land treatment cells within previously permitted facility boundaries. Minor permit modifications shall be approved administratively.

B. Notice of Intent

1. At least 30 days prior to filing such application, the applicant shall publish a notice of intent to apply. Such notice shall contain sufficient information to identify the following:

- a. name and address of the applicant;
- b. the location of the proposed facility;
- c. the nature and content of the proposed E&P Waste stream(s);
- d. the method(s) of storage, treatment, and/or disposal to be used.

2. The notice of intent shall be published in the official state journal, the official journal of the parish in which the proposed facility will be located, and in the journal of general circulation in the area where the proposed facility is to be located, if different from the official parish journal.

3. Such notice shall be in bold-face type and not less than one-quarter page in size and shall be published on three separate days in each journal.

C. General Information. Except for the filing and hearing fees, the following general information must be provided in duplicate in each application for approval to operate a commercial facility or transfer station:

1. for a commercial Class II injection/disposal well application, the appropriate nonrefundable application fee(s), in the amount(s) required by Statewide Order No. 29-R-00/01, LAC 43:XIX.701 et seq., or successor regulations. New operators must submit Form OR-1 (Organization Report) to receive a permanent Operator Code number (no fee required);

2. a nonrefundable hearing fee in the amount required by Statewide Order No. 29-R-00/01, LAC 43:XIX.701 et seq., or successor regulations;

3. a list of names, addresses, and telephone numbers of the principal officers of the company or corporation and the names and addresses of local governing authorities;

4. to document compliance with the location criteria of §507.A.2, provide a list of the names and addresses of all property owners, residents, off-set operators and industrial facilities within one-quarter mile of the proposed facility or disposal well. Include copies of waivers required by §507.B, where applicable. Include a map drawn to scale showing the following information:

a. property boundaries of the commercial facility or transfer station;

b. the boundaries and ownership of all land adjacent to the commercial facility or transfer station;

c. the location and identification of all residential, commercial, or public buildings or hospitals within one-quarter mile of the facility property boundaries; and

d. all public supply wells and the boundaries of all DEQ designated source water supply and wellhead protection areas within one mile of the proposed facility;

5. a detailed schematic diagram of the proposed facility of sufficient scale to show the placement of access roads, buildings, and unloading areas, and the location and identification of all storage tanks, barges, and other containers (including design capacities), treatment system/equipment, levees, flowlines, filters, the Class II disposal well(s), and all other equipment and operational features of the storage, treatment and/or disposal system;

6. for operators proposing the construction and operation of a Class II disposal well, complete the appropriate application form, including all required attachments. To document compliance with the location criteria of §507.A.3, the application must provide strike and dip geologic cross sections intersecting at the location of the disposal well for which a permit is sought. These cross sections must include, at a minimum, available log control, geologic units, and lithology from the surface to the lower confining bed below the injection zone. The sections shall be on a scale sufficient to show the local geology in at least a

two-mile radius from the proposed disposal well. The following information must be included on these cross-sections:

a. the base of underground sources of drinking water (USDW's);

b. the vertical and lateral limits of the proposed injection zone (reservoir);

c. the vertical and lateral limits of the upper and lower confining beds; and

d. the location of faults or other geologic structures;

7. documentation of compliance with the applicable location criteria of §507.A.4 and 5, with regard to flood zones and wetland areas;

8. a copy of the title to the property upon which the facility will be located. If a lease, option to lease or other agreement is in effect on the property, a copy of this instrument shall be included in the application;

9. a parish map of sufficient scale to identify the location of the proposed facility;

10. a topographic map showing the location of the proposed site and any highways or roads that abut or traverse the site, all water courses, flood plains, water wells, and pipelines within one mile of the site boundary;

11. as required in §515, provide a detailed E&P Waste management and operations plan that includes, but is not limited to the proposed method of operation of the facility and procedures for the receipt, storage, treatment and/or disposal of E&P Wastes;

12. documentation that the facility and/or disposal well will comply with the applicable design criteria of §509;

13. evidence of financial responsibility for any liability for damages which may be caused to any party by the escape or discharge of any material or E&P Waste from the commercial facility or transfer station, in compliance with the requirements of §511. The application shall contain documentation of the method by which proof of financial responsibility will be provided by the applicant. Where applicable, include a copy of a draft letter of credit, bond, or any other evidence of financial responsibility acceptable to the commissioner. Prior to beginning construction, final (official) documentation of financial responsibility must be submitted to and approved by the commissioner;

14. documentation that a bond or irrevocable letter of credit will be provided for adequate closure of the facility, in compliance with the requirements of §513. The application must include the following:

a. a detailed cost estimate for adequate closure of the proposed facility. The cost estimate must include a detailed description of proposed future closure procedures including, but not limited to plugging and abandonment of the disposal well(s) (if applicable), plugging of any monitor wells according to applicable state regulations, closing out any sumps, storm water retention (sediment) ponds, or land treatment cells, removing all surface equipment, and returning the environment (site) as close as possible to its original state. The closure plan and cost estimate must be prepared by an independent professional consultant, must include provisions for closure acceptable to the commissioner, and must be designed to reflect the costs to the commissioner to complete the approved closure of the facility;

b. a draft irrevocable letter of credit or bond in favor of the state of Louisiana and in a form which includes wording acceptable to the commissioner. Upon completion of the application review process, the commissioner will set the amount of the required bond or irrevocable letter of credit. The bond or letter of credit must be renewable on October 1 of each year and must be submitted to and approved by the commissioner prior to beginning construction;

15. verification that a discharge permit has been obtained from the appropriate state or federal agencies or copies of any applications submitted to such agencies. If a facility does not intend to discharge treated E&P Waste water or other water, a completed and notarized Affidavit of No Discharge, which includes wording acceptable to the commissioner, must be provided;

16. a list of all other licenses and permits needed by the applicant to conduct the proposed commercial activities. Include identification number of applications for those permits or licenses or, if issued, the identification numbers of the permits or licenses;

17. provide the names of all companies currently or formerly owned and/or operated by the applicant (company requesting a permit) and/or the principal officers of the applicant for the receipt, storage, treatment, recycling and/or disposal of E&P Waste or hazardous or nonhazardous industrial or municipal solid waste;

18. provide a list of local, state and/or federal permits currently or formerly held by the applicant and/or any of the principal officers of the applicant for the storage, treatment, recycling and/or disposal of E&P Waste or hazardous or nonhazardous industrial or municipal solid waste;

19. for each permit included on the list required in §519.C.18 above, provide a list of all environmental regulatory violations, if any, cited by applicable local, state or federal regulatory agencies, including all resulting notices of violation, compliance orders, penalty assessments, or other enforcement actions and the current compliance status of each violation. Such list shall include all violations cited within the 5 years immediately preceding the date of application for a commercial facility or transfer station permit;

20. the names and addresses of the official journal of the parish in which the proposed facility will be located and the journal of general circulation in the area where the proposed facility is to be located, if different from the official parish journal;

21. certification by an authorized representative of the applicant that information submitted in the application is true, accurate and complete to the best of the applicant's knowledge.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2811 (December 2000), amended LR 27:1905 (November 2001).

§521. Permit Application Requirements for a Transfer Station

A. The application for construction and operation of a transfer station by an existing Louisiana commercial facility permitted by the Office of Conservation shall include, but may not be limited to, the information required in §519.C.

B. The application for construction and operation of a transfer station by the operator of an out-of-state, legally permitted commercial facility shall consist of the following:

1. compliance with the notice of intent requirements of §519.B; and

2. submission of the information required in §519.C.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2811 (December 2000), amended LR 27:1906 (November 2001).

§523. Permit Application Requirements for Land Treatment Systems

A. In addition to the information requested in §519.C above, the information required in this section must be provided in duplicate in each application for approval of a commercial facility incorporating the use of land treatment cells.

B. A detailed description of the site considered for land treatment with relation to the following:

1. past and present land use;
2. geology/soil properties/hydrogeology;
3. drainage and flood control;
4. hydrologic balance; and
5. highest seasonal groundwater level.

C. A detailed description of the facility design including maps and drawings and a discussion of the following:

1. site layout;
2. proposed waste application technique;
3. drainage control;
4. proposed waste loading rate; and
5. expected facility life.

D. An explanation of the proposed E&P Waste management plan with reference to the following topics:

1. sampling and testing of incoming waste (waste acceptance procedures);
2. method of receiving waste;
3. waste segregation;
4. application scheduling;
5. waste-soil mixing;
6. proposed land treatment cell and groundwater monitoring plan;
7. reuse stockpile management plan (see §565.G); and
8. an air emissions (odor) reduction and monitoring plan that addresses such sources as:
 - a. the volatilization of organic materials and/or hydrogen sulfide in the E&P Waste;
 - b. particulate matter (dust) carried by the wind;
 - c. periodic removal and subsequent handling of free oil; and
 - d. chemical reactions (e.g., production of hydrogen sulfide from sulfur-bearing E&P Wastes).

E. Detailed information concerning closure and post-closure activities and monitoring as follows:

1. proposed closure procedures;
2. post-closure maintenance; and
3. closure and post-closure monitoring.

F. Documentation of compliance with the location criteria of §507.A.4 and 5.

G. Documentation that the land treatment facility operation requirements of §549 can be met.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2811 (December 2000), amended LR 27:1906 (November 2001).

§525. Permit Application Requirements for Other Treatment and Disposal Options

A. In addition to the information requested in §519.C, the following information required in this section must be provided in duplicate in each application for approval of a commercial facility incorporating the use of treatment and/or disposal options other than land treatment and as defined in §547.

B. A detailed description of the site with relation to the following:

1. past and present land use;
2. geology/soil properties/hydrogeology;
3. drainage and flood control;
4. hydrologic balance; and
5. highest seasonal groundwater level.

C. A detailed description of the facility design including maps and drawings and a discussion of the following:

1. site layout;
2. proposed waste application technique;
3. drainage control;
4. proposed waste treatment rates; and
5. expected facility life;

D. An explanation of the proposed E&P Waste management plan with reference to the following topics:

1. sampling and testing of incoming waste (waste acceptance procedures);
2. method of receiving waste;
3. waste segregation;
4. proposed waste treatment monitoring plan;
5. reuse stockpile management plan (see §565.G); and
6. air emissions (odor) reduction and monitoring plan that addresses such sources as:
 - a. the volatilization of organic materials and/or hydrogen sulfide in the E&P Waste;
 - b. particulate matter (dust) carried by the wind;
 - c. periodic removal and subsequent handling of free oil; and
 - d. chemical reactions (e.g., production of hydrogen sulfide from sulfur-bearing E&P Wastes).

E. Detailed information concerning closure and post-closure activities and monitoring as follows:

1. proposed closure procedures;
2. post-closure maintenance; and
3. closure and post-closure monitoring.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation LR 27:1907 (November 2001).

§527. Permitting Procedures

A. The Office of Conservation will review a new commercial facility or transfer station application within 90 days of receipt and inform the applicant of its completeness.

B. If the application is not complete, the applicant shall be advised of additional information to be submitted for approval or the application shall be returned and the applicant will be required to resubmit the application.

C. Upon acceptance of the application as complete, the Office of Conservation shall set a time and date and secure a location for the required public hearing to be held in the affected parish.

D. The public hearing shall be fact finding in nature and not subject to the procedural requirements of the Administrative Procedure Act. All interested persons shall be allowed the opportunity to present testimony, facts, or evidence related to the application or to ask questions.

E. At least 30 days prior to the hearing, the applicant is required to file six copies of the complete application with the local governing authority of the parish in which the proposed facility is to be located to be made available for public review. Two additional copies of the complete application shall be filed in the parish library closest to the proposed facility.

F. Permit Issuance

1. The commissioner shall issue a final permit decision within 120 days of the close of the public comment period.

2. A final permit decision shall become effective on the date of issuance.

3. A permit to construct a commercial facility or transfer station (and any associated disposal well) will not be granted until a certified copy of a lease or proof of ownership of the property where the proposed facility is to be located is submitted to the Office of Conservation.

4. Approval or the granting of a permit to construct a commercial facility or transfer station (and any associated disposal well) shall be valid for a period of one year and if construction is not completed in that time, the permit shall be null and void. Requests for an extension of this one year requirement may be approved by the commissioner for extenuating circumstances only.

G. The application for construction and operation of a new or additional transfer station by an existing commercial E&P Waste treatment and/or disposal facility permitted by the Office of Conservation to operate within the State of Louisiana shall be administratively approved or denied.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Promulgated by the Department of Natural Resources, Office of Conservation LR 27:1907 (November 2001).

§529. Public Notice Requirements

A. Permit Application Public Hearing Notice

1. Upon acceptance of the application as complete, the Office of Conservation shall publish in the next available issue of the *Louisiana Register*, a notice of the filing and the location, date and time of the public hearing to be held in the affected parish. Such public hearing shall not be less than 30 days from the date of notice in the *Louisiana Register*.

2. At least 30 days prior to the scheduled public hearing, the Office of Conservation shall publish a notice of the filing of the application and the location, date and time of the hearing in the official state journal.

3. The applicant shall publish a substantially similar notice in the official journal of the affected parish and in the journal of general circulation in the area where the proposed facility is to be located, if different from the official parish journal, on three separate days at least 15 days prior to the

date of the hearing. Such notice shall not be less than one-quarter page in size and printed in boldface type.

B. Applications submitted on Form UIC-2 SWD (or latest revision) for a new commercial saltwater disposal well or Form UIC-32 (or latest revision) to recomplete a Class II commercial disposal well into a new disposal zone shall be advertised once in the legal ad section of the official state journal, in the official parish journal where the facility is located and in the journal of general circulation in the area where the facility is located, if different from the official parish journal. Such notice shall contain language acceptable to the Commissioner and shall allow a 15 day comment period. At their own risk, companies may initiate workover activities prior to the end of the comment period. However, the well may not be utilized for injection until the public comment period has ended, the completion report has been submitted and approved and the well has been successfully tested for mechanical integrity.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1908 (November 2001).

§531. Permitting Conditions

A. The Office of Conservation may refuse to issue, reissue, or reinstate a commercial facility or transfer station permit or authorization to the following:

1. any individual, partnership or other entity which has been found to have violated any provision of LAC 43:XIX.Subpart 1 (Statewide Order No. 29-B) or has other violations which include, but is not limited to, failure to provide for proper closure of an oil, gas or injection well, commercial facility, transfer station and/or other oilfield site, failure to pay all fees, or failure to pay all civil penalties;

2. any individual, partnership, corporation or other entity for which a general partner, an owner of more than twenty-five percent ownership interest, a trustee, or other individual having direct or indirect control of the entity has held a position of ownership and/or control in another partnership, corporation or other entity which has been found to have violated any provision of LAC 43:XIX.Subpart 1 (Statewide Order No. 29-B) or has other violations which include, but is not limited to, failure to provide for proper closure of an oil, gas or injection well, commercial facility, transfer station and/or other oilfield site, failure to pay all fees, or failure to pay all civil penalties;

3. any individual, partnership, corporation or other entity for which a general partner, an owner of more than twenty-five percent ownership interest, a trustee, or other individual having direct or indirect control of the entity has held a position of ownership and/or control in another partnership, corporation or other entity which has been found, either contemporaneously with or discovered later, to have submitted false or intentionally misleading reports or responses to the orders of the Office of Conservation.

B. The Office of Conservation may refuse to issue, reissue, or reinstate a commercial facility or transfer station permit or authorization to an individual or entity that has committed a violation of any provision of LAC 43:XIX.Subpart 1 (Statewide Order No. 29-B) or other violations which may subject it to the penalty set forth herein if any one of the following has occurred.

1. An order finding the violation has been entered against the individual or entity and all appeals have been exhausted or the individual or entity has failed to timely and appropriately request a hearing and the individual or entity is not in compliance or on a schedule for compliance with an order.

2. The Commissioner of Conservation and the individual or entity have entered into an agreed order relating to the alleged violation and the individual or entity is not in compliance or on a schedule of compliance with an order.

C. The commissioner may deny an application for a commercial facility or transfer station based upon the regulatory compliance history of the applicant required in §519.C.17, 18 and 19.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation LR 27:1908 (November 2001).

§533. General Operational Requirements for Commercial Facilities and Transfer Stations

A. Commercial facilities and transfer stations shall be operated in compliance with, but not limited to, the following.

1. The area within the confines of tank retaining walls (levees) shall be kept free of debris, trash, and accumulations of oil or other materials which may constitute a fire hazard. Portable gasoline powered engines and pumps must be supervised at all times of operation and stored at least 50' from tank battery firewalls when not in use. Vent lines must be installed on all E&P Waste storage tanks and must extend outside of tank battery firewalls.

2. The area within the confines of tank retaining walls (levees) must be kept free of accumulations of E&P Waste fluids and water. Such fluids shall be properly disposed of by injection into a Class II well or discharged in accordance with the conditions of a discharge permit granted by the appropriate state agency.

3. Tank retaining walls and land treatment cell levees shall be kept free of debris, trash, or overgrowth which would constitute a fire hazard or hamper or prevent adequate inspection.

4. Land treatment cell and associated surface drainage system surfaces shall at no time have an accumulation of oil of more than one inch at any surface location.

5. Land treatment cell levels shall be maintained with at least two feet of freeboard at all times.

6. Tank retaining walls (levees) must be constructed of soils which are placed and compacted in such a manner as to produce a barrier to horizontal movement of fluids. The levees must be properly tied into the barrier along the bottom and sides of the levees. All levees must be provided with a means to prevent erosion and other degradation.

B. All facilities and systems for treatment, control, and monitoring (and related appurtenances) which are installed or used to achieve compliance with the conditions of a permit shall be properly operated and maintained at all times.

C. Inspection and entry by Office of Conservation personnel shall be allowed as prescribed in R.S. 30:4.

D. Discharges from land treatment cells, tanks, tank retaining walls and/or barges into man-made or natural

drainage or directly into state waters will be allowed only after the necessary discharge permit has been obtained from the appropriate state and/or federal agencies and in accordance with the conditions of such permit.

E. A sign shall be prepared, displayed and maintained at the entry of each permitted commercial facility or transfer station. Such sign shall utilize a minimum of one-inch lettering to state the facility name, address, phone number, and site code shall be made applicable to the activities of each facility according to the following example:

"This E&P waste (storage, treatment and/or disposal) facility has been approved for (temporary storage, treatment and/or disposal) of exploration and production waste only and is regulated by the Office of Conservation. Violations shall be reported to the Office of Conservation at (225) 342-5515."

F. A vertical aerial color photograph (or series of photographs) with stereoscopic coverage of each Type A land treatment facility must be obtained during the month of October every two years and provided to the Office of Conservation by November 30 of the year the photo is taken. Such photograph(s) must be taken at an original photo scale of 1" = 1000' to 1" = 500' depending on the size of the facility. Photo(s) are to be provided as prints in either 8" x 10" or 9" x 9" formats. The commissioner may require more frequent aerial photos as deemed necessary.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1909 (November 2001).

§535. Notification Requirements

A. Any change in the principal officers, management, or ownership of an approved commercial facility or transfer station must be reported to the commissioner in writing within 10 days of the change.

B. Transfer of Ownership

1. A commercial facility or transfer station permit may be transferred to a new owner or operator only upon approval by the commissioner. The new owner or operator must apply for and receive an operator code by submitting a completed Form OR-1 (or latest revision) to the Office of Conservation.

2. The current permittee shall submit an application for transfer at least 30 days before the proposed transfer date. The application shall contain the following:

a. name and address of the proposed new owner (permittee);

b. date of proposed transfer; and

c. a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, financial responsibility, and liability between them.

3. If no agreement described in §535.B.2.c above is provided, responsibility for compliance with the terms and conditions of the permit and liability for any violation will shift from the existing permittee to the new permittee on the date the transfer is approved.

C. Commercial facility and transfer station operators shall give written notice to the commissioner of any planned physical or operational alterations or additions to a permitted facility or proposed changes in the E&P Waste management plan. Requests to make such changes must be submitted to

and approved by the commissioner prior to beginning construction or accomplishing the change by other means.

D. The operator of a newly approved commercial facility, transfer station, and/or disposal well must notify the commissioner when construction is complete. The operator shall not commence receiving E&P Waste or injecting E&P Waste fluids until the facility has been inspected for compliance with the conditions of the permit and the disposal well has been tested for mechanical integrity.

E. An operator of a commercial facility or transfer station shall report to the commissioner any noncompliance, including but not limited to those which may endanger public health, safety or welfare or the environment, including, but not limited to, impacts to surface waters, groundwater aquifers and underground sources of drinking water, whether onsite or offsite. Such notice shall be made orally within 24 hours of the noncompliance and followed by written notification within five days explaining details and proposed methods of corrective action.

F. When a commercial facility or transfer station operator refuses to accept a load of unauthorized waste (not meeting the definition of E&P Waste), the Office of Conservation shall be notified immediately by electronic submission (facsimile) of a completed Form UIC-26 and the manifest which accompanied the shipment of unauthorized waste or otherwise provide the names of the generator and transporter of the unauthorized waste.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1909 (November 2001).

§537. Hours of Receiving

A. Commercial facilities and transfer stations shall be adequately manned during hours of receiving and shall receive E&P Waste by truck during daylight hours only. Daylight hours shall be defined as the daily hours for sunrise and sunset as listed in table Number 1119 entitled "Sunrise and Sunset at Baton Rouge, Louisiana," prepared by the Nautical Almanac Office, United States Naval Observatory, Washington, DC 20390.

B. The commissioner may grant approval for after hours (nighttime) receipt of E&P Waste by a commercial facility or transfer station (by truck) when an emergency condition exists which may endanger public health or safety or the environment and to minimize the potential for same. Generators shall be responsible for obtaining prior approval for nighttime disposal by calling the Office of Conservation at (225) 342-5515. When such approval has been granted, the Office of Conservation shall notify the commercial facility or transfer station which will receive the E&P Waste and may notice the state police.

C. Commercial facilities and transfer stations with barge terminals may receive E&P Waste transported by barge on a 24-hour a day basis.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1910 (November 2001).

§539. Monitoring Requirements for Commercial Class II Injection Wells

A. Except during approved workover operations, a positive pressure of no less than 100 psi shall be maintained on the well annulus at all times. An injection volume recorder (tamper proof meter) must be installed and properly maintained on the injection line of each disposal well system. Injected volumes must be recorded monthly and the readings reported monthly on the Commercial Class II Daily Monitoring Log (Form UIC-21, or latest revision) and annually on the annual injection well report.

B. Except during approved workover operations, wells shall be equipped with pressure gauges located on the wellhead, and situated so as to monitor the pressure of the injection stream and the pressure of the annular space between the casing and the injection string.

C. The pressure gauges shall have half-inch fittings, be scaled in increments of not more than 10 psi, and be maintained in good working order at all times.

D. A daily pressure monitoring log shall be maintained by the operator of the facility and shall contain, as a minimum, the following information:

1. the date;
2. the operator's name and address;
3. the well name, number and serial number;
4. the monitored injection pressure;
5. the monitored annulus pressure;
6. whether or not the well was injecting at the time the pressures were recorded; and
7. the name or initials of the person logging the information.

E. The pressure gauges shall be read and pressures recorded in the daily log.

F. The daily log information shall be recorded on the appropriate form and submitted to the Office of Conservation within 15 days of the end of each month.

G. Any discrepancies in the monitored pressures, which would indicate a lack of mechanical integrity and constitute noncompliance with applicable sections of this chapter, shall be reported orally to the Office of Conservation within 24 hours.

H. The commissioner may require, on a case-by-case basis, the installation of a 24-hour chart recorder to monitor injection pressures, injection rates, annulus pressure and injected volumes.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1910 (November 2001).

§541. Sampling and Testing Requirements for Commercial Facilities with Monitor Wells

A. At the discretion of or as determined by the Commissioner, monitor wells may be required to be installed at any commercial facility or transfer station.

B. Water samples from monitor wells shall be sampled by an independent professional consultant and analyzed by an independent testing laboratory. Samples shall be analyzed for pH, electrical conductivity (EC), chloride (Cl), sodium (Na), total dissolved solids (TDS), total suspended solids (TSS), total petroleum hydrocarbons (TPH-ppm), total benzene, As, Ba, Cd, Cr, Cu, Pb, Hg, Mo, Ni, Se, Ag, and Zn.

C. Water from newly constructed monitor wells on new commercial facilities shall be sampled and analyzed prior to receipt of E&P Waste by the facility to provide baseline data for the monitoring system. This data shall be submitted to the Office of Conservation to be made part of the facility's permanent file.

D. Water from monitor wells on existing facilities shall be sampled and analyzed on a quarterly basis, with a copy of the analysis submitted to the Office of Conservation within 15 days of the end of each quarter.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1910 (November 2001).

§543. Receipt, Sampling and Testing of Exploration and Production Waste

A. Only E&P Waste (as defined in §501) from approved generators of record may be received at commercial facilities and transfer stations. Other generators of E&P Waste must receive written approval of the Office of Conservation in order to dispose of approved E&P Waste at a commercial facility or transfer station.

B. For screening purposes and before offloading at a commercial facility or transfer station, each load of E&P Waste shall be sampled and analyzed (by facility personnel) for the following parameters:

1. pH, electrical conductivity, chloride (Cl) content;
2. NORM, as required by applicable DEQ regulations and requirements.

C. The commercial facility or transfer station operator shall enter the pH, electrical conductivity, and chloride (Cl) content on the manifest (Form UIC-28, or latest revision) which accompanies each load of E&P Waste.

D. An 8-ounce sample (minimum) of each load must be collected and labeled with the date, operator and manifest number. Each sample shall be retained for a period of 30 days.

E. Records of these tests performed pursuant to the requirements of this Section shall be kept on file at each facility for a period of three years and be available for review by the commissioner or his designated representative.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation LR 27:1911 (November 2001).

§545. Manifest System

A. In order to adequately monitor the movement and disposal of E&P Waste, every shipment of E&P Waste transported to a commercial facility or transfer station shall be accompanied by a manifest entitled "E&P Waste Shipping Control Ticket." It is expressly forbidden to transport or accept E&P Waste without a properly completed manifest form.

B. For companies who do not possess an Office of Conservation operator code number, Form UIC-23 (or latest revision) must be approved prior to transporting E&P Waste (including Waste Type 99) to a commercial facility or transfer station.

C. For those generators who do possess an operator code number, authorization must be obtained prior to transporting Waste Type 99 to a commercial facility or transfer station.

D. At the time of transport, the generator shall initiate the manifest by completing and signing Part I. After the transporter completes and signs Part II, the generator shall retain Generator Copy No. 1 (green) for his files. All other copies shall accompany the E&P Waste shipment.

E. Upon delivery of the E&P Waste, the commercial facility or transfer station shall complete and sign Part III of the manifest. The transporter shall then retain the Transporter's Copy (pink) for his files.

F. Upon completion of the manifest, the commercial facility or transfer station operator shall mail Generator Copy No. 2 to the generator.

G. The original manifest for each load of E&P Waste received must be retained by the commercial facility or transfer station operator and stored in a secure and accurate filing system. In order to be available for review during site inspections, the manifests for the current months E&P Waste receipts and the prior months E&P Waste receipts must be maintained at the waste disposal facility (commercial facility or transfer station site) where the E&P Waste (and the manifest) was received (destination of the waste).

H. Original manifests must be retained for a period of not less than three years in a manner acceptable to the Commissioner of Conservation and made available for review or submitted to the Office of Conservation upon request.

I. The generator and transporter operator shall maintain file copies of completed manifests for a period of not less than three years.

J. Oil and gas, commercial facility, and transfer station operators who transport E&P Waste out-of-state to a permitted disposal facility or receive E&P Waste from out-of-state must comply with the manifest system requirements of this Section.

K. A monthly report of E&P Waste receipts shall be completed by each commercial facility, transfer station or DEQ permitted facility as defined by LAC 33:V and VII (that receives E&P Waste) on Form UIC-19, or latest revision, and submitted to the Office of Conservation within 15 days of the end of each month.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1911 (November 2001).

§547. Commercial Exploration and Production Waste Treatment and Disposal Options

A. Commercial facilities and transfer stations may be permitted to conduct one or more of the following acceptable commercial E&P Waste treatment and disposal options.

1. Class II Injection Well. Produced salt water is required to be disposed by injection into a Class II well pursuant to the requirements of Chapter 4 of LAC 43:XIX. Other E&P Waste fluids may be injected into a Class II well upon approval of the Office of Conservation. Class II wells may be operated in conjunction with other treatment and disposal options. The requirements for permitting a Class II well are found in Chapter 4 of these regulations (LAC 43:XIX.401 et seq.).

2. Class II Well Slurry Fracture Injection. The process of mixing E&P Waste solids with fluids for subsurface injection. The solids/fluids mixture (slurry) is then pumped

at or above fracture gradients into a suitably characterized subsurface reservoir. A series of fractures are created forming a sphere around the perforated interval. These fractures grow at different orientations around the wellbore and constitute the disposal domain. Slurry fracture injection can only be approved when appropriate regulations are adopted/promulgated.

3. Land Treatment. A dynamic process involving the controlled application of E&P Waste onto or into the aerobic surface soil horizon by a commercial facility, accompanied by continued monitoring and management, to alter the physical, chemical, and biological state of the E&P Waste. Site, soil, climate, and biological activity interact as a system to degrade and immobilize E&P Waste constituents thereby rendering the area suitable for the support of vegetative growth and providing for beneficial future land use or to meet the reuse criteria of §565. The requirements for permitting a land treatment system are found in §519.C and §523.

4. Phase Separation. The process of treating or pretreating oil and gas E&P Waste by physical and/or chemical methods which separate the fluid (water), solid, and oily fractions. Such process can be accomplished by any number of methods, including, but not limited to the use of a centrifuge, belt-press, flocculation, or other methods. The fractions are then further treated or disposed by other acceptable methods. Fluids generally are required to be disposed of into a Class II disposal well. Solids may be further treated or disposed of by one of the options listed herewith. Oil may be sent to a salvage oil reclaimer or sold to a refiner. The equipment and processes utilized in phase separation of E&P Waste must be described in detail in the permit application.

5. Thermal Desorption. The process of heating E&P Waste in an enclosed chamber under either oxidizing or non-oxidizing atmospheres at sufficient temperature and residence time to vaporize organic contaminants from contaminated surfaces and surface pores and to remove the contaminants from the heating chamber in a gaseous exhaust system. The equipment and processes utilized in thermal desorption of E&P Waste must be described in detail in the permit application. The criteria for treatment of E&P Waste by thermal desorption will be set on a case-by-case basis.

6. Cavern Disposal. The utilization of a solution-mined salt cavern for the disposal of E&P Waste fluids and solids. Cavern disposal can only be approved when appropriate regulations are adopted/promulgated.

7. Incineration. The burning of organic E&P Waste materials. This treatment/disposal technique is used to destroy organic compounds with the reduction of the material to its mineral constituents. The equipment and processes utilized to incinerate E&P Waste must be described in detail in the permit application. The criteria for treatment of E&P Waste by incineration will be set on a case-by-case basis.

8. Solidification (Chemical Fixation). The addition of agents to convert liquid or semi-liquid E&P Waste to a solid before burial to reduce leaching of E&P Waste material and the possible migration of the E&P Waste or its constituents from the facility. The equipment and processes utilized to solidify E&P Waste must be described in detail in the permit

application. The criteria for treatment of E&P Waste by solidification will be set on a case-by-case basis.

9. Stabilization (Chemical Fixation). An E&P Waste treatment process that decreases the mobility or solubility of E&P Waste constituents by means other than solidification. Examples of stabilization techniques include chemical precipitation or pH alteration to limit solubility and mixing of E&P Waste with sorbents such as fly ash to remove free liquids. The equipment and processes utilized to stabilize E&P Waste must be described in detail in the permit application. The criteria for treatment of E&P Waste by stabilization will be set on a case-by-case basis.

B. The Office of Conservation will consider new and innovative treatment and/or disposal options on a case-by-case basis. The equipment and processes utilized by technologies other than those listed above to treat or dispose of E&P Waste must be described in detail in the permit application. The criteria for treatment of E&P Waste by other technologies will be set on a case-by-case basis.

C. Produced water (Waste Type 01 – saltwater) is subject to the disposal restrictions of §503.C.

D. Waste Types 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 14, 15, 16, and 99 (and associated washwater) may be treated and disposed by land treatment methods in accordance with the buffer (location) requirements of §507.A.3.

E. Waste Type 12 and wash water (Waste Type 10) generated in the cleaning of vessels containing Waste Type 12 may not be land treated unless the MPC requirements of §503.F and G and §549.C.7.a are met.

F. All E&P Waste types may be treated or disposed by Class II slurry fracture injection, phase separation, thermal desorption, cavern disposal, incineration, solidification or stabilization methods.

G. Transfer stations may receive all E&P Waste types without restriction.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1911 (November 2001).

§549. Land Treatment Facility Requirements

A. Land treatment facilities shall be isolated from contact with public, private, or livestock water supplies, both surface and underground.

B. The siting, design, construction, operation, testing and closure of land treatment facilities shall be approved only after an application is submitted to and approved by the commissioner pursuant to the requirements of §519, §527, and §531.

C. General Requirements

1. The soil shall contain a slowly permeable horizon no less than 12 inches thick containing enough fine grained material within three feet of the surface to classify it as CL, OL, MH, CH, or OH under the Unified Soil Classification System.

2. The seasonal high water table shall be maintained throughout the facility's operational life at least 36" below the soil surface, either as a result of natural or artificial drainage.

3. Throughout the operational life of a land treatment cell, in order to end the treatment phase and re-enter the application phase, a cell must be shown to comply with the following criteria:

| Parameter | Limitation |
|--------------|-----------------------|
| PH | 6.5-9 |
| EC | 10 mmhos/cm |
| SAR | 12 |
| ESP | 15 percent |
| TPH | 3 percent (by weight) |
| Metals (ppm) | |
| Arsenic | 40 |
| Total Barium | 100,000 |
| Cadmium | 10 |
| Chromium | 1,000 |
| Copper | 1,500 |
| Lead | 300 |
| Molybdenum | 18 |
| Nickel | 420 |
| Mercury | 10 |
| Selenium | 10 |
| Silver | 200 |
| Zinc | 500 |

4. The concentration of measured constituents in any groundwater aquifer shall at no time significantly exceed background water quality data.

5. Fluids collected in a land treatment cell underdrain system shall be monitored to provide early warning of possible migration of mobile E&P Waste constituents. The monitoring program shall be defined in the permit application or the facility E&P Waste management and operations plan.

6. An independent professional consultant and laboratory shall perform the necessary monitoring to assure adherence to the requirements of this Section.

7. E&P Waste Pretreatment and Treatment

a. Waste Type 12 which contains a concentration of total benzene equal to or less than 3198 mg/kg total benzene (MPC) may be placed on land treatment cells without pretreatment. However, in treating such E&P Waste, the commercial land treatment facility must meet the location criteria of §507.A.3.

b. Land treatment facilities which have been approved to receive Waste Type 12 which contain more than 3198 mg/kg total benzene must pretreat the E&P Waste to a concentration less than or equal to 3198 mg/kg total benzene (MPC) before placing the E&P Waste on a land treatment cell (see §505.B).

c. Waste Type 06 which has been tested and found to contain a total benzene concentration less than or equal to 113 mg/kg (MPC) may be land treated no closer than 1,000' from a residential or public building, church, school, or hospital.

d. Waste Type 06 which has not been tested or tested and found to contain a total benzene concentration greater than 113 mg/kg (MPC) must be land treated no closer than 2,000' from a residential or public building, church, school, or hospital.

e. Free/visible oil must be removed from all E&P Waste prior to loading on a land treatment cell.

f. Produced saltwater and gas plant waste fluids, must not be disposed of by land treatment. If pretreated prior to disposal (e.g., filtered or otherwise phase separated) fluids must be injected into a Class II well.

8. Application Phase

a. E&P Waste may be applied to active land treatment cells during the application phase only. An application phase begins only under the following conditions:

i. a new constructed and approved cell begins receipt of E&P Waste;

ii. a cell containing treated E&P Waste has been shown to meet the testing criteria of §549.C and is utilized for the application of new E&P Waste receipts;

iii. a cell from which treated E&P Waste has been removed (after meeting the reuse testing criteria of §565) is utilized for the application of new E&P Waste receipts.

b. An application phase ends when either one of the following occurs:

i. three months have elapsed since the date application first began, unless an exception is granted upon proof of good cause under the provisions of §569; or

ii. 15,000 bbls/acre of E&P Waste has been applied to a cell.

c. In order to document the amount of E&P Waste applied to each land treatment cell, commercial facilities are required to:

i. indicate on each manifest (E&P Waste shipping control ticket) the number of the cell onto which each load of E&P Waste is applied;

ii. maintain a daily or weekly log of type and volume of E&P Wastes applied to each land treatment cell and the activities undertaken to bring each cell into compliance; and

iii. include in the quarterly report the amount of each type of E&P Waste applied to each cell and the activities undertaken to bring each cell into compliance during the quarter.

9. Treatment Phase. Upon completion of the application phase, land treatment cells enter the treatment phase. Remedial action (treatment) must be actively performed in order to bring a cell into compliance with this Section. Cells must reach compliance status within 24 months of the end of the application phase.

10. Land treatment cell levees must be constructed of soils which are placed and compacted in such a manner as to produce a barrier to horizontal movement of fluids. Levee construction material shall be compacted in a maximum of 8" lifts to > 90 percent standard proctor test. The levees must be properly tied into the barrier along the bottom and sides of the cells. Actual construction of the levees must be monitored and documented by professional engineering or geotechnical soil testing company. All levees must be provided with a means to prevent erosion and other degradation.

11. Rainwater and other E&P Waste fluids are not to be stored on land treatment cells. Such fluids are to be removed from cells in a timely manner and stored in appropriate facilities. Such fluids may only be used for removal of salts during the treatment phase. Otherwise, cells must remain free of excessive fluids.

12. Storm water retention (sediment) ponds constructed after January 1, 2002 must be constructed in compliance with the liner requirements for produced water pits in LAC 43:XIX.307.A and the land treatment levee requirements of §549.C.10 above. Such ponds must not have an accumulation of oil at any surface location.

D. Monitoring Requirements

NOTE: References for the parameters required in this Section are listed as follows:

EC—electrical conductivity (millimhos/cm for soil, micromhos/cm for water)

SAR—sodium adsorption ratio

ESP—exchangeable sodium percentage (percent)

CEC—cation exchange capacity (milliequivalents/100 gm soil)

TPH—total petroleum hydrocarbons (ppm)

Total benzene (ppm)

TCLP benzene (Toxicity Characteristic Leaching Procedure – ppm)

Total metals as follows:

As—arsenic

Ba—barium

Cd—cadmium

Cr—chromium

Cu—copper

Pb—lead

Hg—mercury

Mo—molybdenum

Ni—nickel

Se—selenium

Ag—silver

Zn—zinc

TDS—total dissolved solids

TSS—total suspended solids

Soluble cations:

Na—sodium

Ca—calcium

Mg—magnesium

Soluble anions:

CO₃—carbonate

HCO₃—bicarbonate

Cl—chloride

SO₄—sulfate

1. Prior to the receipt of E&P Waste in a newly permitted and constructed land treatment system or cell, baseline data must be provided by the following sampling and testing program.

a. Soil in the treatment zone (0-24") of each cell must be sampled and tested for the following parameters: pH, EC, SAR, ESP, CEC, TPH, As, Ba, Cd, Cr, Cu, Pb, Hg, Mo, Ni, Se, Ag, and Zn.

b. Groundwater must be sampled and tested for the following parameters: pH, EC, TDS, TSS, TPH, Cl, Total Benzene, Na, As, Ba, Cd, Cr, Cu, Pb, Hg, Mo, Ni, Se, Ag, and Zn.

c. Water from land treatment cell underdrain systems must be sampled and tested for the following parameters: TDS, pH, Na, Cl, EC, TPH, total benzene, Ba, Pb, Zn, and reactive sulfides.

2. The following monitoring program must be conducted during the active life of a permitted E&P Waste land treatment system:

a. Soil in the treatment zone (waste treatment zone - WTZ and upper treatment zone - UTZ) must be sampled and tested quarterly to determine E&P Waste degradation and accumulation of metals and hydrocarbons. Samples must be

analyzed for the following: As, Ba, Cd, Cr, Cu, Pb, Hg, Mo, Ni, Se, Ag, Zn, and TPH.

b. Soil in the treatment zone (waste treatment zone - WTZ and upper treatment zone - UTZ) must be sampled and tested quarterly to determine the accumulation of salts and to provide data for determining necessary soil amendments. Samples must be analyzed for the following: pH, EC, SAR, ESP, CEC, soluble cations (Na, Ca, Mg), and soluble anions (CO₃, HCO₃, Cl, SO₄).

c. Discharge Water. A copy of each discharge monitoring report made in conformance with any applicable state and/or federal regulatory program shall be furnished to the Office of Conservation on a timely basis.

d. Land treatment cell underdrain systems must be sampled and tested quarterly to determine the presence of mobile constituents. Sampling and testing shall be performed on a quarterly basis. A composite of at least three samples per management unit (or cell if applicable) are to be analyzed for the following: TDS, pH, Na, Cl, EC, TPH, total benzene, Ba, Pb, Zn and reactive sulfides. If total benzene exceeds an action level of 0.5 ppm, the commissioner may require further assessment and testing as deemed appropriate.

e. Groundwater levels in monitor wells shall be measured monthly for a period of two years to determine seasonal fluctuation in water table. Water level shall be measured quarterly each year thereafter.

f. Groundwater from monitor wells shall be sampled quarterly to determine the impact of facility operation on groundwater. Prior to obtaining discreet representative samples, each well must be purged in accordance with EPA guidance. A composite of at least two samples per well shall be tested for the following parameters: TDS, TSS, pH, Cl, Na, EC, TPH, total benzene, As, Ba, Cr, Pb, and Zn.

g. Quarterly monitoring reports must be submitted to the Office of Conservation according to the following schedule: 1st Quarter—due March 31; 2nd Quarter—due June 30; 3rd Quarter—due September 30; 4th Quarter—due December 31. Each quarterly report must contain the following information:

i. the status of each cell at the time of the sampling event (application phase, treatment phase, inactive, etc.), the date(s) sampling took place, and a diagram indicating sample locations for each cell;

ii. the amounts and types of E&P Waste applied to each cell during the application phase, including the beginning and ending dates of application;

iii. a brief description of treatment activities undertaken to bring each cell into compliance with the criteria of this section, including the status of fluids (salts) removal from each cell;

iv. a compilation (chart) of test results for the present and past three quarterly sampling events;

v. copies of current laboratory test data;

vi. the size of each land treatment cell (in acres);

vii. a compilation (chart) of water depth measurements of monitor well water levels calculated from the top of casing;

viii. a potentiometric surface map contoured with water level elevations from mean sea level.

h. The Office of Conservation may approve an alternative monitoring program upon receipt of evidence that such procedure shall provide adequate monitoring during the active life of a facility.

3. Sampling and Testing Requirements

a. A stratified random sampling system shall be used to determine soil sampling locations in land treatment cells. All cells and monitor wells are to be sampled and tested for all parameters unless otherwise approved by the commissioner. Facilities are required to notify the Office of Conservation at least one week in advance of each quarterly sampling event in order for a representative of this office to be present.

b. Soil samples in land treatment cells shall be taken in the waste treatment zone (WTZ) and the upper treatment zone (UTZ). Over time, the depth of the treatment zone sampled may need to be increased due to solids buildup on land treatment cells. The degree of E&P Waste incorporation shall be noted at the time of sampling.

c. At least two samples must be taken from WTZ and UTZ for each acre of cell area.

d. Soil samples are to be analyzed using standard soil testing procedures as presented in the Laboratory Manual for the Analysis of E&P Waste (Department of Natural Resources, August 9, 1988, or latest revision).

e. Water samples are to be analyzed for required parameters according to acceptable EPA guidelines and/or the laboratory procedures as presented in the Laboratory Manual for the Analysis of E&P Waste (Department of Natural Resources, August 9, 1988, or latest revision).

f. The soil in an inactive cell may not be required to be tested for certain quarterly monitoring parameters only after two consecutive quarterly tests indicate compliance and upon receipt of written approval of this office.

E. Closure and Post-Closure Monitoring

1. Operators of land treatment systems shall submit closure and post-closure maintenance and monitoring programs to the Office of Conservation for approval. The monitoring program shall address sampling and testing schedules for soil in the treatment zone, water collected from the unsaturated zone monitoring system, surface runoff water, and groundwater.

2. Sampling and testing must be performed during the entire closure and post-closure periods. To certify closure of a land treatment system, water collected from the unsaturated zone monitoring system and groundwater must meet background water quality values; in addition, soils in the treatment zone and surface runoff water must meet the following criteria:

| Parameter | Criteria | No. of Consecutive Samples |
|------------------------------------|---------------|----------------------------|
| Soils in the Treatment Zone | | |
| PH | 6.5-9 | 2 |
| TPH | # 3.0 percent | 2 |
| EC | # 10 mmhos/cm | 2 |
| TCLP Benzene | # 0.5 ppm | 2 |
| SAR | # 12 | 2 |
| ESP | # 15 percent | 2 |
| Metals (ppm) | | |
| As | # 10 | 2 |
| Ba | # 100,000 | 2 |
| Cd | # 10 | 2 |

| | | |
|---------------------|----------------|---|
| Cr | # 1000 | 2 |
| Cu | # 1,500 | 2 |
| Pb | # 1000 | 2 |
| Hg | # 10 | 2 |
| Mo | # 18 | 2 |
| Ni | # 420 | 2 |
| Se | # 10 | 2 |
| Ag | # 200 | 2 |
| Zn | # 500 | 2 |
| Runoff Water | | |
| PH | 6.5-9.0 | 4 |
| TPH | # 15 ppm | 4 |
| TCLP Benzene | # 0.5ppm | 4 |
| EC | # 2.0 mmhos/cm | 4 |
| SAR | # 10 | 4 |
| TSS | # 60 ppm | 4 |
| Chloride | 500 ppm | 4 |
| Metals (ppm) | | |
| As | # 0.2 | 4 |
| Ba | # 10 | 4 |
| Cd | # 0.05 | 4 |
| Cr | # 0.15 | 4 |
| Cu | # 1.3 | 4 |
| Hg | # 0.01 | 4 |
| Pb | # 0.10 | 4 |
| Se | # 0.05 | 4 |
| Zn | # 1.0 | 4 |

3. Post-closure monitoring shall be performed on intervals of 6 months, 1, 2 and 5 years following certification that closure is complete.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation LR 27:1912 (November 2001).

§551. Requirements for Phase Separation (Reserved)

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1915 (November 2001).

§553. Requirements for Thermal Desorption (Reserved)

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1915 (November 2001).

§555. Requirements for Cavern Disposal (Reserved)

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1916 (November 2001).

§557. Requirements for Incineration (Reserved)

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1916 (November 2001).

§559. Requirements for Solidification/Stabilization (Reserved)

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1916 (November 2001).

§561. (Reserved)

§563. (Reserved)

**§565. Resource Conservation and Recovery of
Exploration and Production Waste**

A. In order to encourage the conservation and recovery of resources in the oilfield industry, the processing of E&P Waste into reusable materials, in addition to or beyond extraction and separation methods which reclaim raw materials such as crude oil, diesel oil, etc., is recognized as a viable alternative to other methods of disposal.

B. Commercial facilities may function for the purpose of generating reusable material only, or they may generate reusable material in conjunction with other storage, treatment or disposal operations.

C. Commercial facilities that produce reusable material are subject to all of the permitting requirements imposed on other commercial facilities. They are also subject to the same operational requirements without regard to the distinction between E&P Waste and reusable material. Existing permits may be amended to allow re-use activities at commercial facilities which acquire the capability to engage in processing for re-use. Commercial facilities which utilize extraction or separation methods to reclaim raw materials such as crude oil, diesel oil, etc. may do so without amendment of existing permits.

D. The onsite generation of reusable material by oil and gas operators, pit treating companies or other companies which do not hold a legal commercial facility permit is prohibited unless the company desiring to perform such activities complies with the requirements of this Subparagraph and submits the following information to the commissioner for approval:

1. the names, addresses, and telephone numbers of the principal officers of the company;

2. a detailed description of the process by which the company will treat pit fluids and/or solids (E&P Waste), including the types of chemicals and equipment used in the process, diagrams, test data, or other information;

3. a description of the geographical area in which the company expects to do business (i.e., statewide, north Louisiana, southwest Louisiana, etc.).

E. In addition to other applicable requirements, companies seeking to be permitted for the production of reusable materials from E&P Waste shall have the following obligations.

1. Prior to permit approval or permit amendment approval, applicants must submit the following information:

a. a detailed description of the process to be employed for generation of reusable material;

b. type of treatment system and/or equipment to be constructed (or added);

c. identification of the proposed uses for the reusable material; and

d. a description of the proposed monitoring plan to be utilized.

2. All proposed uses of reusable material must be approved by the commissioner in writing.

3. The production of reusable material must be conducted in accordance with a monitoring plan approved by the commissioner with issue of the permit for each facility or process.

4. For purposes of regulatory authority only by the Office of Conservation and the establishment of reusable material, compliance with the testing criteria of §565.F below allows permitted companies to offer the material for the following uses:

a. daily cover in sanitary landfills which are properly permitted by state and/or local authorities. The use of reusable material in a sanitary landfill will require written approval of the Department of Environmental Quality; and

b. various types of construction material (fill) on a case-by-case basis. The commissioner may approve such use only after submission and review of an application for the intended use. Approval will be dependent upon the composition of the material and the proposed location of use. Reusable material may not be used as fill for construction purposes unless the specific use has been approved in writing by the commissioner of Conservation.

F. Testing Criteria for Reusable Material

| Parameter | Limitation |
|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Moisture Content | < 50% (by weight) or zero free moisture |
| pH* | 6.5 - 9.0 |
| Electrical Conductivity (EC) | 8 mmhos/cm |
| Sodium Adsorption Ratio (SAR) | 12 |
| Exchangeable Sodium Percentage (ESP) | 15% |
| Total Barium: Reuse/Stockpile at Commercial Facility - Reuse at Location other than Commercial Facility- | 100,000 ppm 40,000 ppm |
| Leachate Testing** for: TPH Chlorides | 10.0 mg/l 500.0 mg/l |
| TCLP Benzene | 0.5 mg/l |
| Leachate Testing**: Arsenic Barium Cadmium Chromium Copper Lead Mercury Molybdenum Nickel Selenium Silver Zinc | 0.5 mg/l 10.0 mg/l 0.1 mg/l 0.5 mg/l 0.5 mg/l 0.5 mg/l 0.02 mg/l 0.5 mg/l 0.5 mg/l 0.1 mg/l 0.1 mg/l 0.5 mg/l 5.0 mg/l |
| NORM | Not to exceed Applicable DEQ Criteria/Limits |

* E&P Waste when chemically treated (fixated) shall, in addition to the criteria set forth be acceptable as reusable material with a pH range of 6.5 to 12 and an electrical conductivity of up to 50 mmhos/cm, provided such reusable material passes leachate testing requirements for chlorides in §565.F above and Extraction Procedure for Toxicity (EP) tests for metals in §565.F above.

** The leachate testing method for TPH, chlorides and metals is included in the *Laboratory Manual for the Analysis of E&P Waste* (Department of Natural Resources, August 9, 1988, or latest revision).

G. A reuse stockpile management plan shall be included in the E&P Waste management and operations plan and as a minimum, shall include the following:

1. dust emissions controls for loading, transporting and offloading operations;

2. erosion control techniques; and

3. optimum pile height and slope.

H. The Commissioner of Conservation, the Secretary of the Department of Natural Resources, and the State of Louisiana upon issuance of a permit to a company or commercial facility under this section shall be held harmless from and indemnified for any and all liabilities arising from the operation of such facilities and use of their products, and the company shall execute such agreements as the commissioner requires for this purpose.

I. Reporting. Each company which generates reusable material must furnish the commissioner a monthly report showing the disposition of all such material.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1916 (November 2001).

§567. Closure

A. All offsite commercial facilities and transfer stations under the jurisdiction of the Office of Conservation shall be closed in a manner approved by the commissioner to insure protection of the public health, safety and welfare or the environment, surface waters, groundwater aquifers and underground sources of drinking water. A plan for closure must be developed in accordance with the requirements of the commissioner. The provisions of any amendment of this rule shall not apply to closure plans which have been previously approved by the Commissioner for inactive or abandoned sites which have not been closed.

B. Closure bond or letter of credit amounts will be reviewed each year prior to the renewal date according to the following process.

1. A detailed cost estimate for adequate closure of each permitted commercial facility and transfer station shall be prepared by a independent professional consultant and submitted to the commissioner on or before February 1 of each year.

2. The closure plan and cost estimate must include provisions or closure acceptable to the commissioner and must be designed to reflect the costs to the Office of Conservation to complete the approved closure of the facility.

3. Upon review of the cost estimate, the commissioner may increase, decrease or allow the amount of the bond or letter of credit to remain the same.

4. Documentation that the required closure bond or letter of credit has been renewed must be received by September 15 of each year or the commissioner shall initiate procedures to take possession of the funds guaranteed by the bond or letter of credit and suspend or revoke the permit under which the facility is operated. In addition, procedures to initiate permit suspension will be initiated. Any such permit suspension will remain in effect until renewal is documented.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1917 (November 2001).

§569. Exceptions

A. The commissioner may grant an exception to any provision of this amendment upon proof of good cause. The

operator must show proof that such an exception will not endanger USDW's.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1917 (November 2001).

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Commissioner of Conservation